

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A chemical vapor deposition system comprising:
 - a housing that defines an enclosed deposition chamber and includes a lower portion and an upper portion having a horizontal junction with each other;
 - a seal assembly that extends between the lower and upper housing portions at their horizontal junction;
 - a roll conveyor located within the deposition chamber to convey glass sheet substrates along a direction of conveyance at a plane of conveyance below the horizontal junction of the lower and upper housing portions where the seal assembly is located;
 - a chemical vapor distributor located within the deposition chamber above the roll conveyor to provide chemical vapor deposition of a coating on the conveyed glass sheet substrates;
 - an annular radiation shield at locations adjacent to the chemical vapor distributor;
 - the housing including an entry through which the glass sheet substrates to be coated are introduced into the deposition chamber at a location below the horizontal junction of the lower and upper housing portions where the seal assembly is located; and
 - the housing including an exit through which the coated glass sheet substrates leave the deposition chamber at a location below the horizontal junction of the lower and upper housing portions where the seal assembly is located.
2. (original) A chemical vapor deposition system as in claim 1 further including a vacuum source for drawing a vacuum within the deposition chamber, the seal assembly between the lower and upper housing portions including inner and outer seal members spaced from each other to define an intermediate seal space that is located between the deposition chamber and the ambient and in which a vacuum is drawn to a lesser extent than in the deposition chamber, and a

sensor for detecting the pressure within the seal space to sense leakage of either the inner seal member or the outer seal member.

3. (original) A chemical vapor deposition system as in claim 2 wherein the seal assembly includes lower and upper seal flanges on the lower and upper housing portions, the inner and outer seal members extending between the lower and upper seal flanges to seal between the lower and upper housings, and clamps that extend between the lower and upper seal flanges to secure the upper housing portion to the lower housing portion.

4. (original) A chemical vapor deposition system as in claim 3 wherein each clamp includes a hydraulic cylinder that provides the securement between the lower and upper seal flanges.

5. (original) A chemical vapor deposition system as in claim 1 including an oven located within the housing and having elongated heaters that extend along the direction of conveyance in laterally spaced banks to heat the conveyed glass sheet substrates and control temperature differentials of the substrates laterally with respect to the direction of conveyance.

6. (original) A chemical vapor deposition system as in claim 5 wherein each elongated heater includes an electric resistance element through which electricity is passed to provide heating and each heater including an elongated quartz tube through which the electric resistance element extends comprises an elongated quartz tube having an electric resistance element passing therethrough, wherein the electrical resistance element provides heat when electricity is passed therethrough.

7. (original) A chemical vapor deposition system as in claim 5 wherein the roll conveyor includes rolls that extent through the oven and have ends projecting outwardly therefrom within the housing, and a drive mechanism that rotatively drives the roll ends outwardly of the oven within the housing.

8. (original) A chemical vapor deposition system as in claim 7 further including a screen that is located below the roll conveyor to catch any broken glass sheet substrates.

9. (original) A chemical vapor deposition system 6 as in claim 8 wherein the screen is made of stainless steel and includes stiffeners.

10. (original) A chemical vapor deposition system comprising:

a housing that defines an enclosed deposition chamber and includes a lower portion and an upper portion having a horizontal junction with each other, and the lower and upper housing portions respectively having lower and upper seal flanges at the horizontal junction of the lower and upper housing portions;

a vacuum source for drawing a vacuum within the deposition chamber;

a seal assembly having inner and outer seal members that extend between the lower and upper seal flanges of the lower and upper housing portions at their horizontal junction to seal therebetween, and the inner and outer seal members being spaced from each other to define an intermediate seal space in which a vacuum is drawn between the deposition chamber and the ambient;

a sensor for detecting the pressure within the seal space to sense leakage of either the inner seal member or the outer seal member;

a roll conveyor located within the deposition chamber to convey glass sheet substrates along a direction of conveyance at a plane of conveyance below the horizontal junction of the lower and upper housing portions where the seal assembly is located;

a chemical vapor distributor located within the deposition chamber above the roll conveyor to provide chemical vapor deposition of a coating on the conveyed glass sheet substrates;

the housing including an entry through which the glass sheet substrates to be coated are introduced into the deposition chamber at a location below the horizontal junction of the lower and upper housing portions where the seal assembly is located; and

the housing including an exit through which the coated glass sheet substrates leave the deposition chamber at a location below the horizontal junction of the lower and upper housing portions where the seal assembly is located.

11. (original) A chemical vapor deposition system comprising:

a housing that defines an enclosed deposition chamber and includes a lower portion and an upper portion having a horizontal junction with each other, and the lower and upper housing

portions respectively having lower and upper seal flanges at the horizontal junction of the lower and upper housing portions;

a vacuum source for drawing a vacuum within the deposition chamber;

a seal assembly having inner and outer seal members that extend between the lower and upper seal flanges of the lower and upper housing portions at their horizontal junction to seal therebetween, and the inner and outer seal members being in spaced from each other to define an intermediate seal space in which a vacuum is drawn between the deposition chamber and the ambient;

a sensor for detecting the pressure within the seal space to sense leakage of either the inner seal member or the outer seal member;

a roll conveyor located within the deposition chamber and having rolls for conveying glass sheet substrates along a direction of conveyance at a plane of conveyance below the horizontal junction of the lower and upper housing portions where the seal assembly is located;

an oven located within the housing with the roll conveyor conveying the glass sheet substrates therethrough, the oven having elongated heaters that extend along the direction of conveyance in laterally spaced banks to heat the conveyed glass sheet substrates and control temperature differentials of the substrates laterally with respect to the direction of conveyance, and each elongated heater including an electric resistance element through which electricity is passed to provide heating and each heater including an elongated quartz tube through which the electric resistance element extends;

a chemical vapor distributor located within the deposition chamber above the roll conveyor to provide chemical vapor deposition of a coating on the conveyed glass sheet substrates;

the housing including an entry through which the glass sheet substrates to be coated are introduced into the deposition chamber at a location below the horizontal junction of the lower and upper housing portions where the seal assembly is located; and

the housing including an exit through which the coated glass sheet substrates leave the deposition chamber at a location below the horizontal junction of the lower and upper housing portions where the seal assembly is located.

12. (original) A chemical vapor deposition system comprising:

a housing that defines an enclosed deposition chamber and includes a lower portion and an upper portion having a horizontal junction with each other, and the lower and upper housing portions respectively having lower and upper seal flanges at the horizontal junction of the lower and upper housing portions;

a vacuum source for drawing a vacuum within the deposition chamber;

a seal assembly having inner and outer seal members that extend between the lower and upper seal flanges of the lower and upper housing portions at their horizontal junction to seal therebetween, and the inner and outer seal members being in spaced from each other to define an intermediate seal space in which a vacuum is drawn between the deposition chamber and the ambient;

clamps that each include a hydraulic cylinder for securing the lower and upper seal flanges to each other;

a sensor for detecting the pressure within the seal space to sense leakage of either the inner seal member or the outer seal member;

a roll conveyor located within the deposition chamber and having rolls for conveying glass sheet substrates along a direction of conveyance at a plane of conveyance below the horizontal junction of the lower and upper housing portions where the seal assembly is located;

a screen located below the roll conveyor to catch any broken glass sheet substrates;

an oven located within the housing with the roll conveyor conveying the glass sheet substrates therethrough, the oven having elongated heaters that extend along the direction of conveyance in laterally spaced banks to heat the conveyed glass sheet substrates and control temperature differentials of the substrates laterally with respect to the direction of conveyance, and each elongated heater including an electric resistance element through which electricity is

passed to provide heating and each heater including an elongated quartz tube through which the electric resistance element extends;

a chemical vapor distributor located within the deposition chamber above the roll conveyor to provide chemical vapor deposition of a coating on the conveyed glass sheet substrates;

the housing including an entry through which the glass sheet substrates to be coated are introduced into the deposition chamber at a location below the horizontal junction of the lower and upper housing portions where the seal assembly is located; and

the housing including an exit through which the coated glass sheet substrates leave the deposition chamber at a location below the horizontal junction of the lower and upper housing portions where the seal assembly is located.

13. (original) The chemical vapor deposition system of claim 1 wherein the entry and exit further comprise load lock cells.

14. (original) The chemical vapor deposition system of claim 1 wherein the chemical vapor distributor has an opposing pair of inlets.

15. (currently amended) A chemical vapor deposition system comprising:
an enclosed deposition chamber comprising:
a housing including a lower portion and an upper portion having a horizontal junction with each other; and

a seal assembly extending between the lower and upper housing portions at their horizontal junction;

a roll conveyor extending through the deposition chamber below the horizontal junction of the housing portions; and

a chemical vapor distributor located within the deposition chamber above the roll conveyor; and

an annular radiation shield at a location adjacent to the chemical vapor distributor.

16. (original) The chemical vapor deposition system of claim 1 wherein the roll conveyor further comprises conveyor rolls, wherein the conveyor rolls have annular radiation shields at locations adjacent to the chemical vapor distributor.

17. (original) The chemical vapor deposition system of claim 12 wherein the screen has screen openings of 1-2 cm.

18. (original) The chemical vapor deposition system of claim 12 wherein the entry and exit further comprise load lock cells.

19. (original) The chemical vapor deposition system of claim 15 wherein the chemical vapor distributor has an opposing pair of inlets.

20. (original) The chemical vapor deposition system of claim 15 wherein the entry and exit further comprise load lock cells.